

DERWENT-ACC-NO: 1996-188303

DERWENT-WEEK: 200273

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TITLE: Solid adhesive emulsion for adhering
fluoro:polymer-coated articles or for mounting optical
pellicle to frame - comprises curable resin pref.
mercapto-ester! polymeric resin or acrylate! monomeric
resin, fluorocarbon cpd., surfactant and initiator

INVENTOR: WANG, C; YEN, Y

PATENT-ASSIGNEE: MICRO LITHOGRAPHY INC[MICRN]

PRIORITY-DATA: 1994US-0310535 (September 22, 1994)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE-69527969-E	October 2, 2002	N/A	000	B60J 001/00
WO 9609183-A1	March 28, 1996	E	027	B60J 001/00
AU 9535952 A	April 9, 1996	N/A	000	B60J 001/00
EP 778804 A1	June 18, 1997	E	000	B60J 001/00
JP 10509989 W	September 29, 1998	N/A	018	C09J 004/02
EP 778804 B1	August 28, 2002	E	000	B60J 001/00

DESIGNATED-STATES: AM AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP
KE
KG KP KR KZ LK LT LU LV MD MG MN MW NO NZ PL PT RO RU SD SE SI SK TJ TT UA
UZ
VN AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG AT BE
CH
DE DK ES FR GB GR IE IT LI LU MC NL PT SE AT BE CH DE DK ES FR GB GR IE IT LI
LU MC NL PT SE

CITED-DOCUMENTS: US 4985473; US 5168001

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
DE 69527969E	N/A	1995DE-0627969	September 22, 1995
DE 69527969E	N/A	1995EP-0933195	September 22, 1995

DE 69527969E	N/A	1995WO-US12079	September 22, 1995
DE 69527969E	Based on	EP 778804	N/A
DE 69527969E	Based on	WO 9609183	N/A
WO 9609183A1	N/A	1995WO-US12079	September 22, 1995
AU 9535952A	N/A	1995AU-0035952	September 22, 1995
AU 9535952A	Based on	WO 9609183	N/A
EP 778804A1	N/A	1995EP-0933195	September 22, 1995
EP 778804A1	N/A	1995WO-US12079	September 22, 1995
EP 778804A1	Based on	WO 9609183	N/A
JP 10509989W	N/A	1995WO-US12079	September 22, 1995
JP 10509989W	N/A	1996JP-0511094	September 22, 1995
JP 10509989W	Based on	WO 9609183	N/A
EP 778804B1	N/A	1995EP-0933195	September 22, 1995
EP 778804B1	N/A	1995WO-US12079	September 22, 1995
EP 778804B1	Based on	WO 9609183	N/A

INT-CL (IPC): B60J001/00, C08F004/00 , C09J004/00 , C09J004/02 , C09J181/00 , G03F001/14

ABSTRACTED-PUB-NO: EP 778804B

BASIC-ABSTRACT:

A 100% solids adhesive emulsion for either adhering fluoropolymer-coated articles or for mounting an optical pellicle to its frame comprises (a) a resin component that is curable according to a free radical curing mechanism, (b) 2-40 vol.% fluorocarbon cpd., (c) 0.1-5 vol.% surfactant and (d) effective amt. of initiator. The amt. of (a) is the balance up to 100 vol.%.

Also claimed are (1) a method of adhering an optical pellicle membrane to a pellicle frame with upper planar surfaces comprising forming an adhesive emulsion from components (a)-(d), applying to at least one of the upper surfaces, pressing the frame surface to the underside of the pellicle membrane and curing it, and (2) a pellicle system for use in photolithography where the above adhesive is cured to attach the outer region of the membrane to the upper surface of the frame, where opt. the bottom surface is coated with an antireflective coating layer.

USE - The adhesive emulsion can be used in the telecommunications field to adhere fluoropolymer-coated optical fibres together.

ADVANTAGE - The optical element is securely bonded to the frame without the need to remove a portion of the coating. The likelihood of generating particulate is minimised. The overall stability/durability of the pellicle system is not affected by the adhesive.

ABSTRACTED-PUB-NO: WO 9609183A

EQUIVALENT-ABSTRACTS:

A 100% solids adhesive emulsion for either adhering fluoropolymer-coated articles or for mounting an optical pellicle to its frame comprises (a) a resin component that is curable according to a free radical curing mechanism, (b) 2-40 vol.% fluorocarbon cpd., (c) 0.1-5 vol.% surfactant and (d) effective amt. of initiator. The amt. of (a) is the balance up to 100 vol.%.

Also claimed are (1) a method of adhering an optical pellicle membrane to a pellicle frame with upper planar surfaces comprising forming an adhesive emulsion from components (a)-(d), applying to at least one of the upper surfaces, pressing the frame surface to the underside of the pellicle membrane and curing it, and (2) a pellicle system for use in photolithography where the above adhesive is cured to attach the outer region of the membrane to the upper surface of the frame, where opt. the bottom surface is coated with an antireflective coating layer.

USE - The adhesive emulsion can be used in the telecommunications field to adhere fluoropolymer-coated optical fibres together.

ADVANTAGE - The optical element is securely bonded to the frame without the need to remove a portion of the coating. The likelihood of generating particulate is minimised. The overall stability/durability of the pellicle system is not affected by the adhesive.

CHOSEN-DRAWING: Dwg.0/3

TITLE-TERMS: SOLID ADHESIVE EMULSION ADHERE FLUORO POLYMER COATING ARTICLE

MOUNT OPTICAL PELLICLE FRAME COMPRISE CURE RESIN PREFER MERCAPTO

POLYESTER POLYMERISE RESIN POLYACRYLATE MONOMERIC RESIN
FLUOROCARBON COMPOUND SURFACTANT INITIATE

DERWENT-CLASS: A14 A81 G03 P84 Q12

CPI-CODES: A04-A; A04-E10; A04-F01A; A08-C01; A11-C01C; A12-A05B1; A12-L03A;
G02-A05H; G03-B02D; G03-B02D1;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; D01 D63 F05 ; P0000 ; L9999 L2391 ; L9999 L2073 ; M9999 M2073
; S9999 S1025 S1014 ; K9790*R

Polymer Index [1.2]

018 ; ND01 ; ND07 ; Q9999 Q6644*R ; B9999 B4988*R B4977 B4740 ;
Q9999 Q8651 Q8606 ; Q9999 Q8344 Q8264 ; B9999 B5301 B5298 B5276
; B9999 B5287 B5276

Polymer Index [1.3]

018 ; D01 D63 D69 F89 F41 F* 7A D26 D11 D10 D88 D93 ; A999 A179
A157 ; A999 A771

Polymer Index [1.4]

018 ; A999 A146

Polymer Index [1.5]

018 ; A999 A635 A624 A566

Polymer Index [2.1]

018 ; H0022 H0011 ; G0260*R G0022 D01 D12 D10 D26 D51 D53 ; G0260*R
G0022 D01 D12 D10 D26 D51 D53 D68 O* 6A F* 7A ; L9999 L2528 L2506
; S9999 S1025 S1014 ; L9999 L2551 L2506 ; K9790*R ; P0088

Polymer Index [2.2]

018 ; H0022 H0011 ; G0260*R G0022 D01 D12 D10 D26 D51 D53 ; G0373
G0340 G0339 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D63 F41 F89
D11 D69 D88 D93 F* 7A ; L9999 L2528 L2506 ; S9999 S1025 S1014 ;
L9999 L2551 L2506 ; K9790*R ; P0088

Polymer Index [2.3]

018 ; ND01 ; ND07 ; Q9999 Q6644*R ; B9999 B4988*R B4977 B4740 ;
Q9999 Q8651 Q8606 ; Q9999 Q8344 Q8264 ; B9999 B5301 B5298 B5276
; B9999 B5287 B5276

Polymer Index [2.4]

018 ; C999 C088*R C000 ; C999 C293 ; C999 C077 C000

Polymer Index [2.5]

018 ; A999 A635 A624 A566

Polymer Index [3.1]

018 ; P0500 F* 7A

Polymer Index [4.1]

018 ; D01 D10*R D63 F41*R F* 7A ; P0000 ; A999 A782 ; A999 A635
A624 A566

Polymer Index [4.2]

018 ; ND07 ; Q9999 Q7114*R ; N9999 N5721*R ; Q9999 Q8651 Q8606 ;
Q9999 Q8344 Q8264 ; B9999 B5287 B5276 ; B9999 B5301 B5298 B5276

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1996-060141

Non-CPI Secondary Accession Numbers: N1996-157522